# SIX NEW SPECIES OF BOLIVIAN GYPONA (HOMOPTERA: CICADELLIDAE)<sup>1</sup>

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ABSTRACT: Six new species of Bolivian *Gypona*: *G. wakanka* n.sp., *G. colophaga* n.sp., *G. rusticana* n.sp., *G. clausula* n.sp., *G. trepida* n.sp., and *G. unduavia* n.sp. are described and illustrated.

The genus *Gypona* was described by Germar (1821). A synopsis of the genus by DeLong and Freytag (1964) treated 44 species. Additional species were described by DeLong & Martinson (1972), DeLong & Kolbe (1974) (1975), DeLong & Freytag (1975) and DeLong & Linnavuori (1977). Six new species are described in this paper. All types are in the DeLong collection, Ohio State University.

#### Gypona wakanka n.sp. (Figs. 1-5)

Length of male 8.5 mm, female unknown. Crown more than twice as wide between eyes at base as long at middle. Ocelli on disc equidistant from each other and eyes. Crown black with a few dark brownish areas. Pronotum brownish anteriorly with black areas behind eyes, disc and posterior portion, black. Scutellum brownish with black basal angles. Forewings whitish, veins pale with brown margins.

Male genital plates more than 3 times as long as wide at middle, apex slightly narrowed, rounded. Style rather broad on basal two-thirds, then bent dorsally and narrowed, apex bluntly pointed. Aedeagal shaft with apical half gradually enlarged, broadly rounded apically, with 4 apical processes, 2 longer processes more than one-third length of shaft, 2 smaller processes one-half length of longer processes. Pyrofer narrowed, blunt apically.

Holotype male: Bolivia, Wakanki, Chepare Mts. 31-III-1978, C.R. Ward coll.

G. wakanka is placed in the subgenus Marganalana and is related to G. nacula DeLong and Freytag from which it can be separated by the four apical processes of the aedeagus and the broader more angled style.

### Gypona colaphaga n.sp. (Figs. 6-10)

Length of male 8.5 mm, female unknown. Crown more than twice as wide between eyes at base as long at middle. Ocelli closer to each other than to eyes. Crown yellowish brown. Pronotum yellowish brown, darker brown spots on disc and humeral angles. A row of small

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black spots just behind anterior margin of pronotum. Two black spots behind each eye next to lateral margin at half length of pronotum. Forewings pale brownish, claval area darker brown, dark brown spots at ends of claval veins on commissure and on cross veins of second sector. Veins pale or dark brown.

Male genital plates more than 3 times as long as wide at middle, apices bluntly pointed. Aedeagal shaft slender near base, gradually enlarged on apical half. Apex of aedeagus broadly rounded, (lateral view) with 4 processes arising ventrally on curved surface near apex, the 2 longer processes extend basad, the 2 shorter processes one-third length of shaft. Pygofer narrowed and rounded apically.

Holotype male: Bolivia, La Paz 7 mi. S.E. Unduavi 7-IV-1978, C.W. & L.B. O'Brien colls.

G. colophaga is placed in the subgenus Marganalana and is related to G. wakanka n.sp. from which it can be distinguished by the elongate, more slender style and by the longer, stouter apical processes of the aedeagus.

### Gypona rusticana n.sp. (Figs. 11-16)

Length of male 7.5, female 10.5 mm. Crown three-fourths as long at middle as wide at base between eyes. Crown orange yellow, ocelli red. Pronotum greenish yellow with remnants of four longitudinal red stripes. Scutellum dull yellowish. Forewings yellowish green, veins indistinct.

Last ventral segment of female with posterior margin shallowly, concavely excavated each side of a median lobe, produced to length of lateral angles and slightly notched at middle.

Male genital plates 3 times as long as wide at middle, apices bluntly pointed. Style sickle-shaped, apex pointed. Aedeagus short and thick, apical portion curved dorsally, apex bluntly pointed, composed of a ventral flat and a dorsal thicker portion. Pygofer bearing an apical process which arises on the dorsocaudal portion and is broadened and blunt apically.

Holotype male, Mexico, Camp. 19 mi. S.W. Escarcego, 4 Aug., 1974, C.W. and L.B.

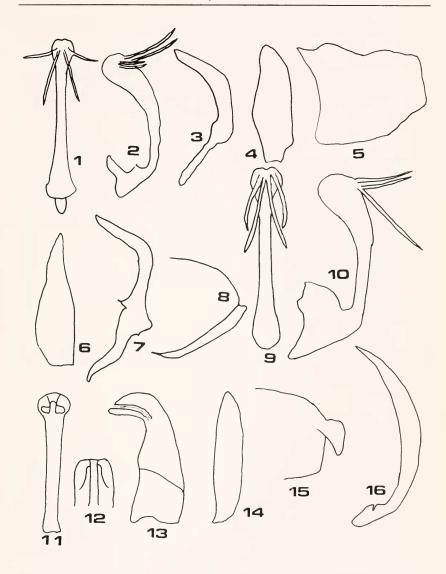
O'Brien & Marshall colls. Paratype: 1 female same data as holotype.

G. rusticana is placed in the subgenus Marganalana and is related to G. palens DeLong from which it can be separated by the single, thicker, dorsally curved, apical portion of the aedeagus and the sickle-shaped style.

### Gypona clausula n.sp. (Figs. 17-21)

Length of male 7.5 mm, female unknown. Crown broadly rounded, more than twice as wide between eyes at base as long at middle. Ocelli closer to each other than to eyes. Color, Crown dark brown. Pronotum dark brown, with 4 large black spots or areas behind each eye, the largest behind inner margin of eye. Scutellum paler brownish with 4 black spots along basal margin. Forewings pale brown, veins pale brown, partially margined with dark brown, first sector area with dark brown cross veins or cross bands.

Male genital plates 2 1/2 times as long as wide at middle, apices pointed. Style with median third slightly broadened and pectinate on dorsal margin. Apical third narrow, apex rounded. Aedeagal shaft enlarged apically, bulbous, bearing four subapical processes, the 2 nearest apex short, the more basal pair about one-third length of shaft and extend laterobasally. The apex of shaft bears 4 short spines. Pygofer narrowed apically and rounded.



*Plate I.* Figs. 1-5 *Gypona wakanka* n.sp. 1. aedeagus ventrally, 2. aedeagus laterally, 3. style laterally, 4. plate ventrally, 5. pygofer laterally. Figs. 6-10 *G. colophaga* n.sp. 6. plate ventrally, 7. style laterally, 8. pyrofer laterally, apical portion, 9. aedeagus ventrally, 10. aedeagus laterally. Figs. 11-16 *G. rusticana* n.sp. 11. aedeagus ventrally, 12. same, apical portion enlarged, 13. aedeagus laterally, 14. plate ventrally, 15. pygofer laterally, apical portion 16. style laterally.

Holotype male, Bolivia, La Paz, 7 mi. S.E. Unduavi, 7-IV-1978 C.W. and L.B. O'Brien colls.

G. clausula is placed in the subgenus Marganalana and is related to G. rahra DeLong, a close relative, from which it can be separated by the sharp pointed apex of the style and the four longer processes of the aedeagal shaft.

#### Gypona trepida n.sp. (Figs. 22-26)

Length of male 8 mm, female unknown. Crown half as long at middle as width between eyes at base. Ocelli eqidistant between each other and eyes. Crown pale brownish. Pronotum pale brown with a dark brownish circular band, a black spot at center near anterior margin each side, reaching to inner margins of eyes, two black spots near lateral margins each side at half length of pronotum. Scutellum pale brown with darker brown basal angles. Forewings pale brownish subhyaline, veins darker brown, claval area appearing dark brown at base.

Male genital plates 3 times as long as wide at middle, apex broadly rounded. Style roundedly broadened on ventral margin at middle, narrow to apical third which is curved dorsally with a spine-like pointed apex. Aedcagal shaft long, slender bearing 4 apical processes about one-fourth length of shaft, two of which, slightly shorter, extend laterobasad. Pygofer narrowed apically, bluntly angled, bearing a sclerotized plate on ventrocaudal margin.

Holotype male Bolivia, Santa Cruz, 10 km. N. Comarapa 30-III-1978, C.W. and L.B.

O'Brien coll.

G. trepida is placed in the subgenus Marganalana and is related to G. nigrena DeLong from which it can be distinguished by the sharper pointed apex of the style and the broader apical portion of the aedeagal shaft.

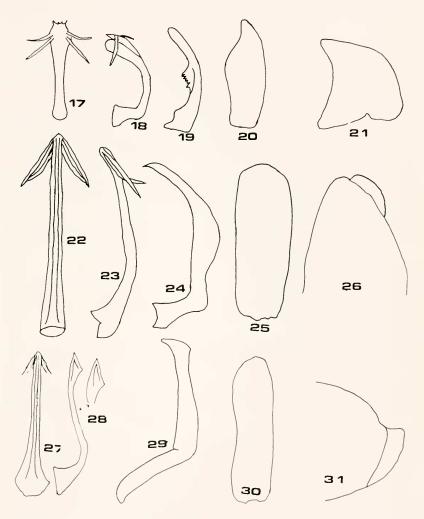
#### Gypona unduavia n.sp. (Figs. 27-32)

Length of male 9 mm, female unknown. Crown thin, foliaceous, broadly rounded, half as long at middle as wide between eyes at base, anterior margin curved upward above disc. Ocelli equidistant between each other and eyes. Crown black, ocelli red, upturned anterior margin brown, a small pale brown spot, each side at base behind ocelli. Pronotum black, median line brown, with brown curved line each side extending from spot at base of crown to lateral margin. Scutellum brownish yellow with a median black rectangular area from which a black band extends to middle, each side. Dorsum black. Forewings yellowish subhyaline.

Male genital plates 4 times as long as wide at middle, apex broad, blunt. Style rather broad, slightly narrowed before foot-shaped apex, with toe pointed dorsally. Aegeagal shaft straight, bearing a flattened, triangular, leaf-like process on ventral apical margin, bearing 4 spine-like apical processes not extending beyond ventral leaf-like portion. Pyrofer narrowed, rounded apically, with a scerotized process on caudoventral half.

Holotype, Bolivia, La Paz, 4 mi. N.E. Unduavi, 9-IV-1978, C.W. and L.B. O'Brien coll.

G. undavia is placed in the subgenus Marganalana and can be separated from G. gelbana DeLong, a related species, by the absence of a heel on the apical "foot" of the style, serrations on ventral margin of the



*Plate II.* Figs. 17-21. *Gypona clausula* n.sp., 17 aedeagus ventrally, 18. aedeagus laterally, 19. style laterally, 20. plate ventrally, 21. pygofer laterally. Figs. 22-26 *G. trepida* n.sp.. 22. aedeagus ventrally, 23. aedeagus laterally, 24. style laterally, 25. plate ventrally, 26. pygofer laterally, apical portion. Figs. 27-31 *G. unduavia* n.sp. 27. aedeagus ventrally, 28. aedeagus laterally, 29. style laterally, 30. plate ventrally, 31. pygofer laterally, apical portion.

style, and different length and arrangement of apical processes on the aedeagal shaft.

#### LITERATURE CITED

- DeLong, Dwight M. and Paul H. Freytag. 1964. Four Genera of World Gyponinae. A Synopsis of the Genera *Gypona*, *Gyponana*, *Rugosana* and *Recticana*. Ohio Biol. Survey Bull. 11(3): 227 p.
- \_\_\_\_\_\_1976. Studies of the Gyponinae (Homoptera: Cicadellidae) Fourteen New Species of Central and South American Gypona. Jour. Kans. Entomol. Soc. 48: 308-318.
- and Alice B. Kolbe. 1974. Studies of the Gyponinae (Homoptera: Ciacellidae) Four New Species of *Gypona* from Panama. Jour. Kans. Entomol. Soc. 48: 201-205.
- \_\_\_\_\_1975. Studies of the Gyponinae: Six New Species of South American Gypona (Homoptera: Cicadellidae). Jour. Kans. Entomol. Soc. 48(2): 201-205.
- and Candace Martinson. 1972. Studies of the Gyponinae (Homoptera: Cicadellidae) Fourteen New Species of *Gypona* from Central and South American. Ohio Jour. Sci. 72: 161-170.
- \_\_\_\_\_\_, and Rauno E. Linnavuori. 1977. Studies of the Gyponinae (Homoptera: Cicadellidae) Seven New Species of *Gypona* from Central and South American. Jour. Kans. Entomol. Soc. 50: 335.341.
- Germar, E.F. 1821. Bemerkungen über einige Gattung der Cicadarien. Mag. Entomol. 4:1-106.

Continued from Page 140

## INTERNATIONAL COMMISSION OF ZOOLOGICAL NOMENCLATURE

c/o BRITISH MUSEUM (NATURAL HISTORY), CROMWELL ROAD, LONDON, SW7 5BD

Opinion No.

- 1170 (p. 95) SATURNIIDAE Boisduval, 1837 (Lepidoptera): placed on official list.
- 1174 (p.105) The type species of *Atractocera* Meigen, 1803 (Diptera) is *Tipuls regelationis* Linnaeus, 1758.
- 1178 (p.114) Megasternum Mulsant, 1844, and Cryptopleurum Mulsant, 1844 (Insecta, Coleoptera): type species determined.
- 1179 (p.117) *Polydrusus* Germar, 1817 and *Phyllobius* Germar, 1824 (Insecta, Coleoptera): conserved in accordance with current usage.

The Commission regrets that it cannot supply separates of Opinions.

R.V. Melville, Secretary